

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (Currently amended) An array apparatus comprising:
a micromachined structure having a plurality of actuatable elements;
an insulative substrate; and
electrostatic electrodes embedded in said insulative substrate and disposed in alignment with individual ones of said actuatable elements on a reverse side of said insulative substrate, said electrostatic electrodes being configured for fanout and coupled via traces through in said insulative substrate.
2. (Original) The apparatus of claim 1 further having a driver module mounted to a reverse side of said insulative substrate and said micromachined structure being mounted directly on an obverse side of the insulative substrate.
3. (Original) An array apparatus comprising:
a micromachined structure having a plurality of actuatable elements;
an insulative substrate; and
electrostatic electrodes embedded in said insulative substrate and disposed in alignment with individual ones of said actuatable elements on a reverse side of said insulative substrate, said micromachined structure and said insulative substrate having mismatched thermal-expansion characteristics, further including a flexible mounting and bias means which allow uneven expansion in x and y while maintaining z-axis stability.
4. (Original) The apparatus according to claim 3 wherein said micromachined structure is a silicon on insulator (SOI) and said insulative structure is a low-temperature co-fired ceramic (LTCC).

5. (Original) The apparatus according to claim 4 wherein said LTCC comprises a plurality of ceramic layers with electrical resistors buried between said layers and further including a driver module mounted on an obverse side of said insulative substrate and a heat extraction means juxtaposed to said driver module for drawing heat away from said insulative substrate.

6. (Original) The apparatus according to claim 3 wherein said flexible mounting and bias means further include bridge means between posts, said bridge means slidably confronting a reverse side of the micromachined structure.

7. (Original) The apparatus according to claim 3 wherein said insulative structure is a glass.

8. (Original) The apparatus according to claim 3 wherein current-limiting resistances are imbedded in the insulative structure in circuit paths between said electrodes and said driver module.

9. (Original) The apparatus according to claim 3 wherein the flexible mounting and bias means comprise posts of metal pins mounted to the insulative layer and each has a fixed cap confronting an reverse restraining surface of said micromachined structure, and a elastomeric element between juxtaposed obverse surfaces of said micromachined structure and said insulative structure.

10. (Original) The apparatus according to claim 3 wherein said micromachined structure is a MEMS array.

11-17. Canceled.

18. (New) An array apparatus comprising:
a micromachined structure having a plurality of actuatable elements;
an insulative substrate; and

electrostatic electrodes embedded in said insulative substrate and disposed in alignment with individual ones of said actuatable elements on a reverse side of said insulative substrate, said electrostatic electrodes coupled via traces through said insulative substrate, further including a flexible mounting and bias means which allow uneven expansion in x and y while maintaining z-axis stability.

19. (New) The apparatus of claim 1 further having a driver module mounted to a reverse side of said insulative substrate and said micromachined structure being mounted directly on an obverse side of the insulative substrate.